Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

vations, both photometric and spectroscopic, of many variable stars. All these stand in an intimate relation to the problems outlined in a general way in the earlier paragraphs of this account.

In closing, one other feature of the Observatory's organization, perhaps more accurately, of its administration, should be mentioned. Besides the services rendered by the regular members of the staff, it has had the stimulating support of a considerable number of men of distinction, who, at one time or another, have joined in its activities, sometimes only briefly as visitors, and sometimes for longer intervals in the closer relation of research associates. First among these associates stands Kapteyn, who for several years has regularly spent the summer on Mount Wilson. Something of the Observatory's indebtedness to his wise and helpful counsel will have been evident from the preceding pages. But there are others, among them Nichols and Julius, Gale and Störmer, and Koch, Chamberlin, and Wood. With problems as wide in scope as those under investigation at Mount Wilson, questions of the most varied import are constantly arising. These frequently lead into fields of activity in which others are more qualified to speak than ourselves. Temporary associations of such individuals with its staff have given the Observatory the advantages, both of expert assistance and advice, and of the great stimulation which comes from contact with fresh and original points of view.

PLANETARY PHENOMENA FOR SEPTEMBER AND OCTOBER, 1917

By Malcolm McNeill.

Phases of the Moon, Pacific Time.

Full Moon....	Sept.	1,	$4^h 28^m$ A. M.	Last Quarter..	Oct.	7,	$2^h 14^m$ P. M.
Last Quarter..	"	7,	$11^h 5^m$ P. M.	New Moon...	"	15,	$6^h 41^m$ P. M.
New Moon....	"	16,	$2^h 27^m$ A. M.	First Quarter..	"	23,	$6^h 38^m$ A. M.
First Quarter..	"	23,	$9^h 41^m$ P. M.	Full Moon....	"	29,	$10^h 19^m$ P. M.
Full Moon....	"	30,	$12^h 31^m$ P. M.				

The Sun reaches the Autumnal Equinox and Autumn begins September 23, 7 A. M., Pacific Time.

Mercury is an evening star at the beginning of September but is too near the Sun for naked eye observation, setting considerably less than an hour after sunset. The distance between the bodies diminishes rapidly and inferior conjunction is reached on September 18. *Mercury* then becomes a morning star and continues to be so until November 3. After conjunction the distance between Sun and planet increases rapidly and in addition the planet moves rapidly northward relative to the Sun; so that at the end of September the planet rises about an hour and a half before sunrise, and is in good position for early morning observation. Sun and planet continue to separate until October 4 when greatest west elongation is reached. The bodies then begin to approach, but rather slowly, so that the interval between the risings of the planet and of the Sun remains more than one hour until after the middle of October. The first half of October, therefore, affords the best opportunity this year for naked eye observations of *Mercury* as a morning star.

Venus is an evening star throughout the period, setting on September 1 less than an hour and one half after sunset and on October 31 considerably more than two hours after. At the end of the period it is nearly at its maximum apparent distance from the Sun. Its actual distance from the Sun in miles is also at its maximum value in October as aphelion is reached on October 14. On account of the nearly perfect circularity of the orbit of *Venus*, the difference of aphelion distance and perihelion distance is much smaller than for any other planet. The motion of *Venus* during the two months is 71° eastward and 22° southward from *Virgo* thru *Libra* and *Scorpio*. On September 9 it passes about 2° north of *Spica*, the brightest star in *Virgo*, and on October 19 about 2° north of *Antares*, the principal star of *Scorpio*. It is also in close proximity to the Moon on the same day, October 19, and for certain tropical regions will be occulted. The time of nearest approach is during daylight in the United States.

Mars on September 1 rises at about $1^h\ 40^m$ A. M. and on October 31 at about $12^h\ 44^m$ A. M. It moves about 37° eastward and 9° southward from a point in *Gemini* about 5° south of *Pollux*, *β Geminorum* thru *Cancer* into *Leo*, and on October 29 passes about one and one half degrees north of *Regulus*, *α Leonis*, the principal star in the constellation, the star in the end of the handle of "the Sickle." It is in conjunction with *Neptune* on September 22 and with *Saturn* at 4 A. M. on October 1. *Mars* will then be $0^\circ\ 40'$ north of *Saturn*. The actual distance of *Mars* from the Earth has begun to diminish more rapidly so that by the end of October it is perceptibly brighter than it was during the summer.

Jupiter is moving into good position for evening observation. On September 1 it rises at 10^h 40^m P. M. and at about 6^h 40^m P. M. on October 31. It is in the constellation *Taurus* not far north and east of the *Hyades* group, of which *Aldebaran* is the principal star, and thru September moves eastward a little more than 1°; it then begins to retrograde, and during October its motion is a little less than 2° westward.

The distance between *Saturn* and the Sun is increasing and the planet rises earlier, shortly before 3 A. M. on September 1 and at about 11^h 30^m P. M. on October 31. It is in the constellation *Cancer* and moves about 5° eastward and southward. At the end of the period it is about 14° west and north of *Regulus*. Its conjunction with *Mars* on October 1 has been mentioned. As seen in the telescope the minor axis of the ring appears to be slowly contracting and toward the end of the period is only a little more than one-fourth of the major axis.

Uranus was in opposition during the middle of August and is therefore in fine position for observation during the evenings of September and October, remaining above the horizon until after midnight up to the last days of October. It remains in the constellation *Capricorni*, with very little motion, the total amount being a little more than one degree westward, and much more than half of this is during September. Its westward motion ceases on October 30. It still remains in the neighborhood of the two stars δ and γ *Capricorni*, near which it has been throughout the season. On September 1 it is about 2° due north of γ, the fainter and right hand one, and during the period moves in the general direction away from the brighter a little more than 1°.

Neptune remains in the neighborhood of *Saturn* in the constellation *Cancer*, its distance being 3° west of the latter on September 1 and 7° west on October 31. It is in conjunction with *Mars* on the morning of September 22, *Mars* passing 1° 18′ north of *Neptune*.